WHAT IS CLAIMED IS:

1. A method of bonding a fluoropolymer to a substrate comprising:

providing a bonding composition including an amino-substituted organosilane between a fluoropolymer and a substrate to form a primed article; and

heating the primed article to a temperature for a sufficient time to bond the fluoropolymer and the substrate to form a bonded article.

2. The method of claim 1, wherein providing includes treating a surface of the fluoropolymer with the bonding composition and contacting the treated surface of the fluoropolymer with a surface of the substrate.

3. The method of claim 1, wherein providing includes treating a surface of the substrate with the bonding composition and contacting the treated surface of the substrate with a surface of the fluoropolymer.

4. The method of claim 1, wherein providing includes extruding a mixture of the fluoropolymer and the bonding composition and contacting a surface of the extruded mixture with a surface of the substrate.

5. The method of claim 1, wherein the substrate includes an inorganic substrate.

6. The method of claim 5, wherein the inorganic substrate includes a metal or a glass.

7. The method of claim 1, wherein the substrate includes an organic substrate.

8. The method of claim 7, wherein the organic substrate includes a non-fluorinated polymer.

9. The method of claim 1, wherein the fluoropolymer includes a polymer derived from a monomer selected from the group consisting of a vinylidene fluoride monomer, and ethylene combined with a comonomer, the comonomer being selected from the group consisting of tetrafluoroethylene, hexafluoropropylene, chlorotrifluoroethylene, 3-chloropentafluoropropene, a perfluorinated vinyl ether, vinyl fluoride and a fluorine-containing diolefin.

10. The method of claim 1, wherein the amino-substituted organosilane has a hydrolyzable substituent.

11. The method of claim 1, wherein the amino-substituted organosilane is selected from the group consisting of 3-aminopropyltrimethoxysilane, 3-aminopropyltriethoxysilane, (aminoethylaminomethyl)phenethyltrimethoxysilane, (aminoethylaminomethyl)phenethyltriethoxysilane, N-(2-aminoethyl)-3-aminopropylmethyldimethoxysilane, N-(2-aminoethyl)-3-aminopropyltris(2-ethylhexoxy)silane, 6-(aminohexylaminopropyl)trimethoxysilane, 4-aminobutyltrimethoxysilane, 4-aminobutyltriethoxysilane, p-aminophenyltrimethoxysilane, 3-(1-aminopropoxy)-3,3,-dimethyl-1-propenyltrimethoxysilane, 3-aminopropyltris(methoxyethoxyethoxy)silane, 3-aminopropylmethyldiethoxysilane, 3-aminopropyltrimethoxysilane, and aminoundecyltrimethoxysilane.

12. The method of claim 1, wherein the bonding composition includes a phase transfer catalyst or an acid catalyst.

13. The method of claim 12, wherein the phase transfer catalyst or acid catalyst is selected from the group consisting of a phosphonium salt, an ammonium salt, a fluoroaliphatic sulfonyl compound, a perfluoroalkylcarboxylic acid, and an arylcarboxylic acid.

14. The method of claim 1, wherein the primed article is heated to a temperature between 50 and 300°C.

15. The method of claim 1, wherein the primed article is heated to a temperature between 75 and 250°C.

16. The method of claim 1, further comprising applying pressure to the primed article.

17. A method of bonding a fluoropolymer to a substrate comprising:

treating a surface of the fluoropolymer with a bonding composition including an amino-substituted organosilane having a hydrolyzable substituent;

contacting the treated surface of the fluoropolymer with a surface of a substrate; and

heating the contacted surfaces to a temperature for a sufficient time to bond the fluoropolymer and the substrate to form a bonded article.

18. The method of claim 17, wherein the substrate includes an inorganic substrate.

19. The method of claim 18, wherein the inorganic substrate includes a metal or a glass.

20. The method of claim 17, wherein the substrate includes an organic substrate.

21. The method of claim 20, wherein the organic substrate includes a non-fluorinated polymer.

22. The method of claim 17, wherein the fluoropolymer includes a polymer derived from a monomer selected from the group consisting of a vinylidene fluoride monomer, and ethylene combined with a comonomer, the comonomer being selected from the group consisting of tetrafluoroethylene, hexafluoropropylene, chlorotrifluoroethylene, 3-chloropentafluoropropene, a perfluorinated vinyl ether, vinyl fluoride and a fluorine-containing diolefin.

23. The method of claim 17, wherein the amino-substituted organosilane is selected from the group consisting of 3-aminopropyltrimethoxysilane, 3-aminopropyltriethoxysilane, (aminoethylaminomethyl)phenethyltrimethoxysilane, (aminoethylaminomethyl)phenethyltriethoxysilane, N-(2-aminoethyl)-3-aminopropylmethyldimethoxysilane, N-(2-aminoethyl)-3-aminopropyltris(2-ethylhexoxy)silane, 6-(aminohexylaminopropyl)trimethoxysilane, 4-aminobutyltrimethoxysilane, 4-aminobutyltriethoxysilane, p-aminophenyltrimethoxysilane, 3-(1-aminopropoxy)-3,3,-dimethyl-1-propenyltrimethoxysilane, 3-aminopropyltris(methoxyethoxyethoxy)silane, 3-aminopropylmethyldiethoxysilane, 3-aminopropyltrimethoxysilane, and aminoundecyltrimethoxysilane.

24. The method of claim 17, wherein the bonding composition includes a phase transfer catalyst or an acid catalyst.

25. The method of claim 24, wherein the phase transfer catalyst or acid catalyst is selected from the group consisting of a phosphonium salt, an ammonium salt, a fluoroaliphatic sulfonyl compound, a perfluoroalkylcarboxylic acid, and an arylcarboxylic acid.

26. The method of claim 17, wherein the contacted surfaces is heated to a temperature between 50 and 300°C.

27. The method of claim 17, wherein the contacted surfaces is heated to a temperature between 75 and 250°C.

28. The method of claim 17, wherein contacting includes applying pressure.

29. The method of claim 4, wherein the amino-substituted organosilane has a hydrolyzable substituent.

30. The method of claim 29, wherein the substrate includes an inorganic substrate.

31. The method of claim 29, wherein the inorganic substrate includes a metal or a glass.

32. The method of claim 29, wherein the substrate includes an organic substrate.

33. The method of claim 32, wherein the organic substrate includes a non-fluorinated polymer.

34. The method of claim 29, wherein the fluoropolymer includes a polymer derived from a monomer selected from the group consisting of a vinylidene fluoride monomer, and ethylene combined with a comonomer, the comonomer being selected from the group consisting of tetrafluoroethylene, hexafluoropropylene, chlorotrifluoroethylene, 3-chloropentafluoropropene, a perfluorinated vinyl ether, vinyl fluoride and a fluorine-containing diolefin.

35. The method of claim 29, wherein the amino-substituted organosilane is selected from the group consisting of 3-aminopropyltrimethoxysilane, 3-aminopropyltriethoxysilane, (aminoethylaminomethyl)phenethyltrimethoxysilane, (aminoethylaminomethyl)phenethyltriethoxysilane, N-(2-aminoethyl)-3-aminopropylmethyldimethoxysilane, N-(2-aminoethyl)-3-aminopropyltris(2-ethylhexoxy)silane, 6-(aminohexylaminopropyl)trimethoxysilane, 4-aminobutyltrimethoxysilane, 4-aminobutyltriethoxysilane, p-aminophenyltrimethoxysilane, 3-(1-aminopropoxy)-3,3,-dimethyl-1-propenyltrimethoxysilane, 3-aminopropyltris(methoxyethoxyethoxy)silane, 3-aminopropylmethyldiethoxysilane, 3-aminopropyltrimethoxysilane, and aminoundecyltrimethoxysilane.

36. The method of claim 29, wherein the bonding composition includes a phase transfer catalyst or an acid catalyst.

37. The method of claim 36, wherein the phase transfer catalyst or acid catalyst is selected from the group consisting of a phosphonium salt, an ammonium salt, a fluoroaliphatic sulfonyl compound, a perfluoroalkylcarboxylic acid, and an arylcarboxylic acid.

38. The method of claim 29, wherein the contacted surfaces is heated to a temperature between 50 and 300°C.

39. The method of claim 29, wherein the contacted surfaces is heated to a temperature between 75 and 250°C.

40. The method of claim 29, wherein contacting includes applying pressure.